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COMMENTARY

# Maternal depression in low- and middle-income countries

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Maternal depression is an enormous, neglected public health problem in low- and middle-income countries (LAMICs). Evidence is accumulating to guide intervention, focused on integrating mental health care into routine maternal and child health care through a task sharing approach. Key questions around the 'who, what, when, where and how?' of intervention will be discussed in relation to the existing evidence base. A great deal of attention is now being paid to maternal health in LAMICs. By seizing this opportunity to also attend to maternal mental health care, important public health gains can be made for both the mother and her children.

**Keywords:** Maternal depression, Postnatal depression, Developing countries, Primary health care, Health services



The most common mental health condition to affect perinatal women and mothers worldwide is depression. Strong evidence from low- and middle-income countries (LAMICs), using culturally-validated measures, indicates that depression in pregnancy and the postnatal period is at least as prevalent as in high income countries, if not more so.[1] Although variation exists between settings, an estimated 16% of women are affected by depression in pregnancy and 20% in the postnatal period. Most maternal depression in LAMICs remains undetected and untreated but that does not mean it is without consequence.

Added to the mental suffering, untreated maternal depression is associated with adverse public health and social consequences for both mother and child. Maternal depression is disabling, leading to a reduced ability to function and work.[2] Suicide is expected to soon become the leading cause of maternal mortality in some LAMICs,[3] in line with the situation in high income countries. For the child, there is now compelling evidence for maternal depression as an independent risk factor for infant undernutrition and infant diarrhoeal episodes, particularly in South Asia.[2,4] Although requiring replication, maternal depression has also been found to be associated with low birth weight,[2] delayed initiation of breast-feeding,[5] impaired infant cognitive and motor development[6] and increased child mortality[7] in LAMICs.

If we accept the evidence that maternal depression is an enormous, neglected public health problem for LAMICs, the next step is to consider the options for intervention. Evidence is accumulating to assist our actions, but some key questions remain as to the 'who, what, when, where and how?' of intervention.

Who? The dearth of mental health professionals available in public services in LAMICs means that 'task sharing' maternal mental health care with primary care and general health care workers is the most feasible way to improve coverage and reduce the treatment gap. In task sharing, non-specialist health professionals are trained and supported to deliver clearly delineated elements of mental health care previously provided by mental health professionals. Rigorous, high quality trials have shown that community-based health workers[8] and facility-based primary health care workers[9] are able to deliver circumscribed components of maternal mental health care effectively in LAMIC settings.

What? The World Health Organization's mental health Gap Action Programme (mhGAP) has recently produced evidence-based guidelines for the treatment of depression in the primary healthcare setting in LAMICs, including in the context of pregnancy and the postnatal period.[10] Prescription of antidepressant medication is indicated for moderate to severe depression but is complicated when a woman is pregnant or breast-feeding, requiring support from mental health specialists. Furthermore, acceptability of medication amongst women is often low at this time. Therefore, psychosocial approaches are likely to be more appropriate for the majority of women. Brief, structured psychological therapies have been adapted successfully for perinatal women in LAMICs. In Pakistan, a cluster randomised controlled trial of a 'thinking healthy' intervention based on principles of cognitive behavioural therapy was effective in treating perinatal depression, although had no significant effect on infant undernutrition.[8] In Chile, psychoeducational groups, delivered as part of a stepped care intervention and incorporating problem-solving, behavioural activation and cognitive techniques, produced sustained reductions in symptoms of postnatal depression.[9] As has been noted previously in relation to other physical health conditions affected by mental health,[11] the psychological factors mediating

the effect of maternal depression on infant undernutrition may not be fully addressed by existing depression interventions, highlighting a need for refinement of such interventions. Similarly, there is tentative evidence of indirect maternal mental health benefits of participation in community-based women's groups focused on addressing non-mental health problems, such as maternal and neonatal survival.[12] These beneficial mental health effects are likely to be maximised if more depression-specific interventions are incorporated into such groups, with the potential to enhance both mental health and public health impact.

When? The optimal timing for intervention in maternal depression is informed by various factors. The pattern of health service use by women provides particular opportunities for detecting and treating depression. There is also the epidemiology of maternal depression. In settings where there is a high level of persistence of depression from pregnancy into the postnatal period, for example, in Pakistan,[2] it makes sense to target interventions at women attending for antenatal care. This is a time when a high proportion of women are already in contact with health services thus making it an efficient approach. However, in some LAMIC settings, there is a high level of resolution of antenatal depressive symptoms following safe delivery of a healthy child, for example, in Ethiopia.[13] In this situation, it may be necessary to focus detection and intervention efforts on postnatal women.

Where? Postnatal traditions, such as the obligatory period of confinement observed in many cultures, can affect help-seeking behaviour in the postnatal period. We also know that, more generally, there is low uptake of psychological interventions delivered in health facility settings in LAMICs.[14] Home-based intervention may, therefore, be required but can capitalise on the presence of community-based health workers. In the Pakistan 'thinking healthy' programme, community-based 'lady health workers', with responsibility for maternal and child health, were trained to deliver the intervention to mothers in their homes.[8]

How? The practicalities of how packages of maternal mental health care can be integrated into routine maternal and child health care are the subject of much interest. The limited evidence in existence supports stepped care service models; for example, the Perinatal Mental Health Project in South Africa,[15] whereby the severity of depression determines the intensity of the service response. The ongoing UKAID-funded Programme for Improving Mental Health CarE (PRIME)[16] is considering the delivery of maternal mental health care within general health care across five LAMICs. In collaboration with key stakeholders, PRIME will develop, implement and evaluate integrated district mental health plans for maternal mental health care delivery in these settings, with focus on the interventions needed at the level of the community, the health facility and the health service organisation.

In summary, a great deal of attention is now being paid to maternal health in LAMICs. By seizing this opportunity to also attend to maternal mental health care, important public health gains can be made for both the mother and her children.

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